Non-Patent-Literature Search by STIC 2800.
(M. Sims).

L17 ANSWER 22 OF 41 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:961510 CAPLUS <<LOGINID::20060203>>
DOCUMENT NUMBER: 140:136092
TITLE: Optical properties of ZnO/GaN heterostructure and its near-ultraviolet **light-emitting** diode
AUTHOR(S): Yu, Qing-Xuan; Xu, Bo; Wu, Qi-Hong; Liao, Yuan; Wang, Guan-Zhong; Fang, Rong-Chuan; Lee, Hsin-Ying; Lee, Ching-Ting
CORPORATE SOURCE: Department of Physics, Structure Research Laboratory, University of Science and Technology of China, Hefei Anhui, 230026, Peop. Rep. China
SOURCE: Applied Physics Letters (2003), 83(23), 4713-4715
CODEN: APPLAB; ISSN: 0003-6951
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Luminescence** in a ZnO/GaN heterostructure is reported, which showed a donor-acceptor pair emission band at 3.270 eV and the LO phonon replicas at 12 K. In comparison with p-type GaN, the positions of the peaks are red shifted. This may be associated with the variation of the residual strain in the GaN layer of the heterostructure. Using this heterostructure, near-UV **LEDs** were fabricated, and their **electroluminescence** properties were characterized.

IT **1314-13-2**, Zinc oxide, properties
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process); USES (Uses)
(**luminescence** and near-UV **LED** of gallium nitride heterostructure with)
RN 1314-13-2 CAPLUS
CN Zinc oxide (ZnO) (9CI) (CA INDEX NAME)

O=Zn

IT **7439-95-4**, Magnesium, properties
RL: DEV (Device component use); **MOA (Modifier or additive use)**; PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process); USES (Uses)
(**luminescence** and near-UV **LED** of gallium nitride/zinc oxide heterostructure **doped** with)
RN 7439-95-4 CAPLUS
CN Magnesium (8CI, 9CI) (CA INDEX NAME)

Mg

IT **25617-97-4**, Gallium nitride
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process); USES (Uses)
(**luminescence** and near-UV **LED** of zinc oxide